
# MCFRS IN-SERVICE TRAINING PROGRAM

## FIREGROUND DECISION MAKING

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## FIRE GROUND DECISION MAKING

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# MCFRS In-Service Training Program

## FIRE GROUND DECISION MAKING

## I. OVERVIEW:

Incident scenes can become dynamic and ever-changing due to their complexities. As unit officers and incident commanders, these changes must be anticipated in order to stay ahead of changing conditions while anticipating problems that may arise. Upon arrival on the scene of an incident, training and experience must assume the lead. Problems that may be observed can be solved through the application of strategy and tactics developed through the decision making process. There are two basic methods of decision making. First, the classical method which is a most often used long and methodical process that takes the incident commander through a step by step process. Second is the cue-based method which is reliant upon the past experiences of the officer or incident commander. It is fast, aggressive, and promotes rapid decision making.

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## II. OBJECTIVES

Operational personnel will be able to:

- Understand the difference between cue-based and classical decision making
- Identify 13 points of size-up
- Discuss strategy, tactics, and tasks found in the classical decision making process
- Discuss the different modes of attack

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## III. CRITICAL DISCUSSION POINTS

**A.** Cue Based Decision Making

1. The fire officer, through their personal experience, training, and incident response, has established a base of knowledge.
2. At the scene of an incident, the officer is able to recall and associate automatically past experiences with current situations.
3. This assists the officer with recognizing signs or cues that may be present to facilitate strategies and tactics mitigating the incident.
4. The recognition factor can occur through sight, sound, or smell as the brain responds and remembers through past association.
5. If the firefighter has not been exposed to a particular type of situation, they can often see instances that will be automatically associated to similar events; although there may not be enough information to solve the issue, it allows for a starting point for the officer.
6. Cue-based decision making is extremely rapid and is the desired method for emergency operations.

**B.** The Classical Method

1. The classical method is used when the incident presents cues that the officer has not experienced.
2. The information must then be processed by using the command sequence.

3. Having completed this process, the officer in future situations will simply use their cue-based knowledge.

**C.** The Command Sequence

1. All fire ground operations must be handled with a systematic approach.

2. The command sequence consist of five levels:

**a.** Incident Priorities:

- Life safety includes endangered civilians, responding firefighters, and other public safety personnel at the scene.

- Incident stabilization refers to fire confinement, patient stabilization, or leak containment.

- Property conservation refers to minimizing property damage.

**b.** Size-up

- The initial size up starts with the pre-planning process.

- At the time of the alarm, this critical information will be invaluable.

- The company officer needs to take immediate action with no interior assessment available to their advantage where a Chief Officer has more time to affect decisions.

- WALLACE WAS HOT covers 13 points to aid in size up:

| | | |
|---|---|---|
| Water | Weather | Height |
| Area | Auxiliary appliances | Occupancy |
| Life Hazard | Special matters | Time |
| Location | | |
| Apparatus | | |
| Construction | | |
| Exposures | | |

- Through the size-up, we must attempt to answer questions like:
  1. Where is the fire located?
  2. Is it confined?
  3. Where is it going?
  4. What is the life hazard to civilians and firefighters?
  5. What is the type of construction?
  6. What is the inherent danger of this type of construction?
  7. Is there a potential for a significant fire behavior occurrence (flash-over or back draft)?
  8. What is the size of the building?

**c.** Strategy, Tactics, and Tasks (3, 4, and 5 of the Command Sequence)

- Size-up identifies problems present at an incident scene.
- Strategy, which can be determined by using the acronym RECEO VS, solves the problems identified through size-up.
- Tactics are the methods by which your strategies are achieved. Tactics are “how” to do it and tasks are “who” is to do it and “when”
- The seven basic strategies are referred to as RECEO VS
  1. Rescue: where are the occupants, how can we get to them, and can a quick “knock” protect them.

2. Exposures: always consider the potential of fire spread to an adjacent property.
3. Confinement: confine the fire to as small an area as possible while attempting to determine the fires path.
4. Extinguishment: no more fire, no more problems. Must practice discriminate use of water to minimize water damage
5. Overhauling: by opening up areas where the fire could have extended, we ensure that the fire is fully extinguished.
6. Ventilation: allows for hose line intervention to effect extinguishment and aids to draw the fire away from trapped occupants during rescue.
7. Salvage: helps to lessen property loss through recovery of undamaged items.

D. Modes of Attack: The initial mode of attack must be determined by the first arriving officer.

1. Offensive Mode of Attack

a. The first hose line must protect civilians who are still exiting the building or in need of rescue.

b. Gaining control of the stairs helps gain control of the building.

c. The second line should back up the first line.

d. The third line, per MCFRS SSFF Policy 24-07, states that the third hand line will go to the floor above the fire

to confine vertical and/or horizontal extension or to protect the most threatened exposure.

e. Safety dictates that a hose line should not be operating on an upper floor until the fire on the lower floor is controlled or has a hand line in operation

d. When stretching hand lines for interior operations, the third hand line should not enter through the same door way or entrance as the first two lines. Use a window or alternative doorway.

e. A “Rule of Thumb” for determining the proper hose length (*from an article in Fire Engineering Magazine, March 1997 entitled “**Stretching and Advancing Hand lines**” by Andrew Fredericks*):

- For buildings with frontages of 35 feet or less and depths between 50 and 75 feet, use the floor number of the fire floor to determine the amount of hose required. In these buildings, if the fire is on the fourth floor, use four lengths of hose (200 ft.)
- In larger multiple family buildings with frontages from 36 to 100 feet and depths up to 100 feet, start with the floor number of the apartment and add one length
- Additional lengths will be needed between the engine and the fire building

2. Defensive Mode of Attack should be considered when:
   a. the fire is beyond the scope of control with hand lines

   b. there are no civilians or firefighters in the fire building

   c. there are no sufficient resources on the scene

   d. the risk to firefighters out weigh the benefit

3. Exposures

a. the first arriving officer must make an assumption as to the path of the fire and where it can be stopped

b. the first line for a defensive mode of attack should be placed to protect the most endangered property

c. where adjoining buildings are encountered, the possibility of extension is greatly increased

d. collapse zones must be considered when positioning apparatus for a defensive attack

e. the correct appliance must be considered for master stream operations

f. if the stream is not hitting the fire for attack, it is ineffective

4. Offensive/Defensive Mode of Attack

a. this transitional mode of attack can be utilized when there is knowledge that relocation for fortification may be needed

b. changing fire ground conditions can dictate the need to change from a offensive to a defensive mode of attack

5. Defensive/Offensive Mode of Attack

a. if the fire is beyond the extinguishment of hand lines, heavy caliper streams can affect a knock down through a blitz attack

b. after the knock down, once the building has been checked for structural stability, hand line operation may then commence

c. if, upon arrival, insufficient staffing is not available to attack the fire, the first arriving officer may elect to engage in an exterior attack until the arrival of

resources; upon their arrival, the mode of attack may be switched to the offensive mode

6. Changing the Mode of Attack
    a. there must be clear direction from the IC when the mode of attack is changing

    b. all units must acknowledge the transition

    c. exterior streams must not be directed into windows or doors when firefighters are operating inside

    d. the defensive attack should be performed with master stream devices

    e. hand lines should be shut down in an effort to augment the water supply necessary to support the master stream operation

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### IV. REVIEW QUESTIONS

a. What is the difference between cue-based and classical decision making?

b. What are the five levels of the command sequence?

c. List the three incident priorities.

d. What are the 13 points of an incident size-up?

e. What is the difference between strategy and tactics?

f. What does the acronym RECEO VS mean?

g. List the four modes of attack.

h. Give some considerations when in transitional attack mode.

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### V. GROUP EXERCISE


**Your engine company is dispatched 1st due to a two story, type III ordinary construction taxpayer at 0300 hours with heavy fire showing on the second floor of side "alpha." The buildings dimensions are 50' by 150'. There are exposures on the "bravo" and "delta" sides of the fire building.**

I. **What would be your incident priorities?**
II. **Where would you stretch your initial attack line?**
III. **What mode of attack would you declare?**
IV. **What are some apparatus positioning challenges visible from this picture?**

**Your engine company is dispatched 1st due to a one story, type II non-combustible commercial structure with heavy smoke coming from the top of a roll up door from side "alpha" and fire coming from a window on side "Charlie" quadrant C at 1745 hours. The buildings dimensions are 135' by 65'. There are no attached exposures although there are single family residences on side "Charlie" separated by a fence.**

I. **What are your incident priorities?**
II. **What mode of attack would you declare?**
III. **Using RECEO VS, describe your strategy.**
IV. **What are some major construction concerns with this type of building?**
V. **As the incident commander, how would you use the third due Engine Company?**

**Your engine company is dispatched to a multi-story residential structure at 0709 hours that is stand piped, of type I construction, with fire reported on the 7th floor. Upon arrival, you witness heavy fire venting from the balcony of a 7th floor unit on side "delta" with fire threatening the unit above. The temperature is 68 degrees with 7 mile an hour winds coming from the northeast. The building is currently being evacuated.**

I. **What would be your incident priorities?**
II. **What additional resources would you consider?**
III. **Discuss the scene size-up mnemonic WALLACE WAS HOT as it pertains to this incident.**
IV. **What mode of attack would you declare?**
V. **What are some additional considerations that are inherent with this type of construction? Smoke movement? Fire spread? Rescue?**

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### VI. ATTACHMENTS